former intensity. He consulted me in November, 1902. At that time he was considerably emaciated, his general appearance being that of a man in great suffering. He was urinating every few minutes and at each act suffered severe pain, which was referred to the under surface of the glans penis. The stream was interrupted. His suffering was so pronounced that he had been taking large doses of morphin in an effort to obtain relief. At the examination his urethra was exquisitely sensitive and a general anesthetic had to be employed. Normal caliber of urethra was 35 F, meatus 25 F, which entered to vesical neck. Number 20 F, steel sound, was passed into the bladder with some difficulty. No vesical calculus could be felt with the stone searcher, but upon introducing the instrument the sensation of a prostatic stone was imparted to the hand. The prostate was not enlarged. Urine contained much pus, some blood and albumen. No kidney elements could be found. Diagnosis: Probable prostatic calculus. Operation advised.

The usual perineal incision was made and the prostate carefully explored. No calculus could be felt nor any deposit of salts within the canal. No bladder stone. The prostatic urethra immediately adjoining the bladder, in other words, the vesical neck, was found narrowed to the size of a Number 20 F. With a bistury this was incised on the floor of the canal until no obstruction remained. The bladder was washed out and perineal drainage established through a large rubber tube. The presence of the tube caused so much distress that it had to be removed at the end of twenty-four hours. All pain then ceased and the patient progressed to an uneventful recovery. Steel sounds were introduced at intervals until the man returned to his home about the middle of December. His frequent urination had ceased and the pain had disappeared. I heard from him several months later and he was then well.

H. M., single, age 39. Denies venereal history. Perfectly well until November, 1901. Then noticed frequent desire to urinate accompanied with pain. The onset was sudden. Soon the stream was diminished in size and force and there was hesitation in starting. He began the use of the catheter during the winter and irrigated the bladder, but without relief. The introduction of steel sounds was tried with negative results. He had never passed blood or gravel. He continued in much the same condition until July, 1902, when he consulted me. At that time he was urinating every hour and the act was accomplished only after much straining. Normal caliber 35 F, meatus 30; (entered the prostatic urethra, but there was stopped). Number 25 passed into the bladder. A soft rubber catheter could not be introduced, but with a silver catheter about twelve ounces of urine was withdrawn. The prostate per rectum was smooth, not enlarged, not sensitive. Seminal vesicles were perhaps slightly thickened. Examination of the urine showed much pus, slight albumen, few blood cells, no casts or other kidney elements. Cystoscopic examination was not made at this time. Diagnosis: Intravesical growth occluding the urethral orifice. Operation was recommended.

The usual median perineal incision was made into the membranous urethra. Exploration of the prostate revealed a marked and rigid contraction of the bladder neck, which was relieved by liberal incision. No stone or vesical tumor was present. Perineal drainage was established and the usual after treatment of perineal cases was followed. The wound healed slowly, a small fistula remaining for several months, but this eventually closed. The frequency of urination was much diminished, the patient having to arise once at night, and the pain was entirely relieved. A peculiarity in this case was the condition of the musculature of the bladder. Almost complete paresis had followed the repeated overdistensions and in spite of the fact that the obstruction had been removed, the use of a catheter was necessary to empty the bladder. The bladder has gradually regained power until at the present time the larger portion of the urine can be passed voluntarily. When necessary to use it, the rubber catheter can be introduced without difficulty.

January, 1902. A. J., age 45, single. Denies venereal history. Eight years ago began having frequent and painful urination, which has continued to the present time. Cause unknown. Arises once or twice at night. Chief symptom is a burning, heavy pain, or as the patient describes it, a great distress about the neck of the bladder. The pain radiates to the rectum and is sometimes felt about the thighs. Not fully relieved by urination. The pain, while not constant, is present the greater part of the time. He has been subjected to various forms of treatment, injections, sounds, bladder washing, etc. When he consulted me I was in doubt as to the nature of the trouble. The urethra seemed normal in size and the endoscope showed nothing abnormal. The bladder examinations were negative. The prostate was smooth, not enlarged and not unduly sensitive. Urine normal in action, no albumen, no sugar, no kidney elements. Diagnosis: "Neuralgia of prostate and hypochondria". He was treated for several months without benefit and finally as a last resort drainage of the bladder was proposed, to which the patient consented, rather to my surprise. A median perineal incision was made into the membranous urethra. A decided contracting band was found in the prostatic urethra, which was overstretched by means of wide-bladed forceps. A careful exploration of the bladder showed this viscus normal. Perineal drainage was maintained for a few days, and then the wound was permitted to heal. All distressing urinary symptoms disappeared and the patient felt that he was well. However, after a few months the old pain began to return and soon was almost as distressing as before the operation. This return I attribute to the fact that I did not completely divide the obstruction at the time of the operation.

GASTRIC ULCER.*

By E. C. DUNN, M. D.

IN presenting this subject for your consideration tonight, it is not with the hope of promulgating anything new as to diagnosis or treatment, but rather with the thought that gastric ulcer is much more frequent than recognized, and therefore is probably more often overlooked than any other affection.

I find in an excerpt from an article on this subject presented to the American Medical Association the following statement: "Five per cent. of all hospital cases suffer from this disease. In ordinary life gastric ulcer may not be so frequent, but there is no doubt that many apparently healthy persons or sufferers from obscure stomach symptoms are really carrying around latent gastric ulcer."

If this statement is true it will certainly not be amiss for us to spend this evening in the consideration and discussion of so important a subject. That gastric ulcer is one of those diseases which have been well thrashed over in medicine,

* Read before the Fresno County Medical Society.

I know; but sometimes these are not always the best understood and the clearest subjects in medical literature.

In passing, allow me to say, while the surgical part of this subject is not within the province of this paper, the surgery for gastric ulcer and its results is very extensive and is demanding more and more attention every day.

I find the following in an article on stomach surgery, read before the American Medical Association: "We have learned that the fears and apprehensions of excessive danger that so long detained our surgical endeavors in the upper half of the abdomen were greatly exaggerated, and that the surgery of this part of the peritoneal cavity is not attended by unusual risks if we choose an opportune time for operating, while the morbid process is yet circumscribed and before the recuperative and reparative powers of the patient are exhausted. Indeed, it has been shown that the stomach will bear almost any kind of surgery with comparative safety to the patient, if the operator is clean, the patient is in good condition, and the small intestines are not unnecessarily exposed or subjected to trauma."

Etiology: The etiology of most cases of gastric ulcer is obscure. Usually there is more than one causative factor. Some predisposing conditions are: Disturbances in the vascular supply of the stomach, injury to wall of stomach, deterioration in the general health, diminished alkalinity of the blood, and long pre-existing hyperchlorhydria.

Only one thing in etiology is thoroughly agreed upon—that anemic conditions, and especially chlorosis, form the basic predisposition to the affection.

Diagnosis: The diagnosis in a typical case is usually not a matter of difficulty. The localized pain, made more manifest by pressure, accompanying emaciation and usually some chloranemia, makes ulcer probable, even where no hemorrhage from stomach or through bowels is manifest. If carcinoma can be excluded, either hematemesis or hemorrhage through bowels, from stomach, or both, with the characteristic localized pain, leaves little doubt of ulcer. Some authorities believe that the tender point in the back is of the utmost importance in the diagnosis of gastric ulcer, and that it is frequently found in that affection. In the differential diagnosis of gastric ulcer from cancer, the presence of free hydrochloric acid where no tumor can be discovered, speaks for ulcer, while the failure to find free hydrochloric acid is against the diagnosis of ulcer.

Treatment: The main object of your treatment is, of course, to heal the ulcerated surface. This is accomplished by giving the stomach as near absolute rest as possible, and in this way lessen the organ's motor and secretory functions; but at the same time you must maintain the bodily nutrition. Healing is favored additionally by a neutralization of the gastric secretion with appropriate antacids and by the employment of remedies exerting a soothing action on the ulcerated surface and upon the hypersensitive mucous membrane.

An absolute milk diet has been the treatment advocated in these cases for years past; but we believe at this day we can improve on this. The first and most important thing recommended is to send your patient to bed for a period of from ten days to three or four weeks, according to the indications present; then all food by the mouth interdicted. Fluids, except sufficient water for the administration of the medicines taken, should be withheld.

The best of the remedies advised are: bismuth subait., bismuth sub-gallate, argentum nitrate, olive oil, albuminate of iron, nutrient enema and stomach lavage with some bland non-toxic antiseptic fluid. Lavage, however, should be used with great caution, especially where hematemesis is manifest.

The treatment indicated above is that recommended by the different authorities. My treatment, in the main, has been as follows: To put my patient to bed at once from one to four or more weeks, according to indications. Stop everything by mouth except medicine and water needed, if any, to administer. For medicine I now rely mainly on emulsion petroleum with the hypophosphites. If thirst is prominent, small pellets of ice in the mouth, but I control principally with warm saline water enemas. Then feed your patient with nutrient colon enema. For this you can use somatose, egg, beef jelly in combination, or peptonized milk-gruel. But this nutriment must be ready for immediate assimilation. You must add papain or caroid to digest the egg and use diastase to digest the gruel if not peptonized. The enema is better tolerated in the colon than rectum, and absorption is more rapid there. If iron is indicated you can add the albuminate in ½-ounce doses to your enema. These nutrient enemas should be given every six or eight hours, and it is preferable at least twice daily to precede them an hour with a warm saline water enema.

After your patient has become well enough to begin some nourishment by stomach, I have found it well to bear in mind the rules as laid down by Hare in his *Practical Therapeutics*:

(1) "We must avoid all food that can either mechanically or chemically irritate the surface of the ulcer.

(2) "Avoid the use of food that is calculated to stimulate the acid secretions of the stomach.

(3) "Avoid distending the stomach with much food at a time, for by maintaining the stomach in a contracted state, its mucous membrane is thrown into folds, so that the margins of the ulcer are relaxed, and its extent diminished—

conditions favorable to the filling up and healing of the ulcer.

(4) "Any excitement of the muscular movements of the stomach should be, so far as possible, prevented."

I have found malted milk to be an excellent food in this stage. Peptonized milk and peptonized milk-gruel are also useful for a change. As your patient gains you can vary and add to this dietetic treatment until he is on a full and ordinary diet. However, even at this stage it must be borne in mind that gastric ulcer patients as a rule are hyperchlorhydric and cannot follow the diet of ordinary people—therefore, should be warned not to eat greasy or highly seasoned food; should have food cooked well-done, avoid condiments and masticate thoroughly and slowly.

A word as to the prophylaxis of gastric ulcer in certain conditions, combined with certain occupations. I find the following under "Practical Hints" in the *International Clinics*: "Attention has recently been called to the fact that gastric ulcer develops with special frequency in certain occupations, and that anemic individuals who follow these occupations should be warned of the special danger involved. Anemic cooks, for instance, should be warned of the danger of tasting very hot food; anemic seamstresses warned not to lean against their machines, especially when in vibration, because there seems no doubt that through thin abdominal walls an anemic mucous membrane may, under these conditions, suffer from a sort of decubital ulcer. This is also true for factory operatives. Shop-girls, bookkeepers and typewriters should be warned not to lean against counters and desks, for nearly the same reason."

It is only necessary to name the results of long-continued ulcer, where hemorrhage or perforation has not supervened to cause a fatal termination or a resort to surgical interference, as the treatment of these sequella is naturally surgical. The most common result is pyloric obstruction, which is frequently followed by gastric dilatation and gastric stagnation. Adhesions of the stomach to a neighboring organ, or to the abdominal wall, is another result of gastric ulcer, and may occasion symptoms quite as distressing as those due to pyloric stenosis.

Before closing, I wish to mention the indications for operation in gastric ulcer. In an article on abdominal surgery, I find the following: "The question of operation for ulcer of the stomach has been widely discussed during the past year, and the consensus of opinion seems to be that in ordinary cases no operation should be performed until all medical means have been exhausted. But in the case of perforation or hemorrhage, operation should be immediately resorted to."

LAPAROTOMY—REPORT OF AN OPERATION.*

W. B. CUNNANE, M. D.

APRIL 25, 1903, I was called to see Mrs. R.; on arrival I found her in labor; the pains were occurring regularly at intervals of about ten minutes. She gave a history of seven pregnancies at full term without any complications; present pregnancy normal, except that she seemed to be larger than usual. White female; native of California; age 36 years; Albino. On inspection abdomen seemed quite large and of irregular contour. On examination found uterus containing fetus on the left side, and a fluctuating tumor of considerable size occupying the right side and extending upwards into the right hypochondriac region. After making the examination, I explained to her husband and mother the condition of affairs, but refrained from mentioning it to her lest she should become unduly alarmed. On account of the position of the tumor the labor progressed normally, and she was delivered of a nine-pound boy about 3 p. m. The placenta came away about ten minutes after delivery, and the uterus contracted normally. The lying-in period was normal in every particular. I told her about the tumor the tenth day, and suggested the advisability of an operation at the termination of the sixth week. At first she consented, but later declined, thinking it might disappear without operative interference.

October 18th I saw her again and found the abdomen much larger than it should have been at the termination of pregnancy. The skin was stretched as tight as a drum, the swelling extending to the ensiform cartilage, and she was perfectly helpless. She complained of a great deal of pain over the abdomen and a crampy sensation of the heart. She realized the seriousness of her condition and readily consented to go to the Cottage Hospital for the purpose of an operation.

October 24th, with the assistance of Drs. Blake, Spaulding and Stoddard, I did a laparotomy, removing about thirty-five pounds of tumors. The first incision was about four inches long, in the median line, extending from the umbilicus downward. The abdominal and cyst walls were so firmly bound together by adhesions and so thin that the knife passed imperceptibly through both, permitting the contents of the latter to escape. It contained about twenty-four pounds of a substance which bore a striking resemblance to a mixture of brown bread and milk. The cyst was so closely adherent to the abdominal walls that its removal was very tedious and difficult. After its removal there was considerable hemorrhage, which was controlled by compression forceps and hot sponges. The second cyst was small and

(Continued on Page 98.)

* Read before the Santa Barbara County Medical Society.